

Case: CN 2493421Y

Title: Writing Implement

The present invention relates to a writing implement and belongs to a stationary product field.

Writing implements are indispensable for paperwork. As shown in Fig. 1 showing a structure of a conventional writing implement, an annular groove part 101 having minute recesses is formed on a lower part of a pen shaft 100 around a pen core 300. A cylindrical pen sheath 200 made of a soft elastic material is arranged outside the annular groove part. A pen head 400 is locked on the pen core 300. Thus, when a user holds the pen shaft, his/her fingers press onto the pen sheath. Due to the pen sheath made of a soft elastic material, the fingers suitably can hold the writing implement without slippery.

However, when the writing implement is used, a front part of the pen shaft 100 is held by the finger tips of the thumb, the index finger, and the mid finger, while a rear part of the pen shaft 100 is held by the crotch between the thumb and the index finger. Since the pen sheath 200 made of a soft elastic material is disposed around the groove part having minute recesses, the finger tips are likely to relatively slip from the pen sheath 200. In addition, depending on cases, the pen sheath 200 may drop off, so that the pen shaft cannot be stably held. Plastic or Metal writing implements have also this kind of problem, but no countermeasure has been taken. The present invention has been made in view of the above circumstances.

The object of the present invention is to provide a writing implement having an excellent stability when held, and giving no fatigue to a user when used for a long time.

In order to achieve the above object, the writing implement of the present invention includes a three-layer combination structure in which a soft elastic pen sheath is sandwiched between a metal inner sleeve and a metal outer sleeve. The outer sleeve is provided with a plurality of openings in a wall thereof. The inner sleeve has an upper screw thread and a lower screw thread to which a pen shaft and a pen head are engaged, respectively. The pen sheath sandwiched between the inner and outer layer sleeves is provided with a plurality of projections arranged to correspond to the openings formed in the outer layer sleeve. The projections project outward from the openings of the outer sleeve.

The pen sheath is made of silica gel material.

According to the present invention, since the metal sleeves are combined with the pen sheath made of silica gel to provide the three-layer combination structure, and the structure is securely locked with the pen shaft. Thus, the holding part of the writing implement has an excellent stability. Even when the writing implement is used for a long time, the user feels no fatigue.

The present invention is described in detail below with reference to the drawings.

Fig. 1 is a sectional view of a structure of a conventional writing implement.

Fig. 2 is an exploded of the present invention.

Fig. 3 is an exploded view of a structure of a pen sheath of the present invention.

Fig. 4 is a view of the structure of the pen sheath of the present

invention.

Fig. 5 is a sectional view of the present invention.

Fig. 6 is an image view of an embodiment of the present invention.

Figs. 2 and 5 are an exploded view and a sectional view of the present invention. As shown in Figs. 2 and 5, a metal writing implement includes a pen shaft 10 having an inner screw thread 11, and a metal inner layer sleeve 20. A diameter of the metal inner layer sleeve 20 is slightly smaller than an outer diameter of the pen shaft 10. The inner layer sleeve 20 has an upper outer screw thread 21 and a lower outer screw thread 21. When the outer screw thread 21 is engaged with the inner screw thread 11 on the lower edge of the pen shaft 10, the inner layer sleeve 20 and the pen shaft 10 are locked. A soft elastic pen sheath 40 made of silica gel is disposed around the inner layer sleeve 20. The soft elastic pen sheath 40 is provided on a surface thereof with projections 41 arranged at equal intervals. An outer layer sleeve 30 is disposed outside the pen sheath 40. The outer layer sleeve 30 is provided in its wall openings 31 that are arranged to correspond to the projections 41 of the pen sheath 40. When combined, the pen sheath 40 is sandwiched between the inner layer sleeve 20 and the outer layer sleeve 30 (see, Figs. 3 and 4). By inserting pen core 60 into the pen shaft 10, and by locking a pen head 50 with the lower outer screw thread 21 of the inner layer sleeve 20, the writing implement is completed.

Thus, a holding part of the writing implement has an excellent stability because of a three-layer combination type including the metal sleeve 20, the metal sleeve 30, and the pen sheath 40 made of silica gel. The pen sheath 40 can be tightly in contact with the inner and outer layer sleeves 20 and 30, so that the sleeve

set can be locked onto the pen shaft 10. There is no possibility that the pen sheath drops from the pen shaft, which is the conventional problem. Even when the writing implement is used for a long time, the user feels no fatigue.

Only the suitable embodiment has been described above. However, the present invention is not limited thereto, and various changes and limitations are possible without departing from the scope of the present invention.

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## [12] 实用新型专利说明书

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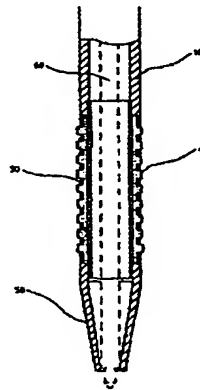
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[54] 实用新型名称 书写用笔具

[57] 摘要

一种书写用笔具,其特征是于笔杆处锁固一由内、外金属制套管中间夹合一软质弹性笔套三层组合式结构体,其中于外套管管壁设有多个排列的圆孔,内层套管的上、下两侧设有螺牙,分别螺合笔杆及笔头,而内、外层套管间夹合的笔套对应外层套管上排列的圆孔设有多个凸粒,凸粒凸伸出外层套管的圆孔。笔套为硅胶材质制成。本实用新型的优点是可增大握笔时的稳固性,且即使长时间书写亦不易感觉疲劳。



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## 权 利 要 求 书

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- 5 1、一种书写用笔具，其特征是于笔杆处锁固一由内、外金属制套管中间夹合一软质弹性笔套三层组合式结构体，其中于外套管管壁设有多个排列的圆孔，内层套管的上、下两侧设有螺牙，分别螺合笔杆及笔头，而内、外层套管间夹合的笔套对应外层套管上排列的圆孔设有多个凸粒，凸粒凸伸出外层套管的圆孔。
- 2、根据权利要求 1 所说的书写用笔具，其特征是笔套为硅胶材质制成。

# 说明书

## 书写用笔具

5 本实用新型涉及一种书写用笔具，属于文具用品领域。

现今社会上工商繁忙，文具用品多为办公及日常书写所用的必需品，而已知笔具的结构，请参见图 1，多是采用笔杆 100 底缘制以微凹陷的环状沟部 101 位，并于环状沟部外套置一由软质弹性材料呈筒状的笔套 200，再依续套设笔心 300 并锁合笔头 400，让使用者握持笔杆时其指尖夹合于笔套处，其因具备软质弹性  
10 的笔套外层，达到使指尖可舒适握持及止滑等功效。

然而，一般在握持笔具书写时，主要是以拇指、食指及中指指尖抵持笔杆 100 前段部，并由拇指及食指间的靠持部托持笔杆后段，而因软质弹性笔套 200 是以套设方式，套置于微凹陷的沟槽处，不免产生与指尖间相对滑动，严重者将有笔套层脱落的现象，遂易导致握持摇晃而影响握持笔杆的稳固性，而于塑胶及金属  
15 制笔具中皆采用此套置笔具层等方式，显然未有人对此有任何改善之处，本实用新型即为申请人着眼于此首先开发设计提出对上述缺陷的解决方案的产物。

本实用新型的目的是提供一种可增大握笔时的稳固性，且即使长时间书写亦不易感觉疲劳的笔具。

为达上述目的，本实用新型一种书写用笔具，其特征是笔杆上锁固一由内、  
20 外金属制套管中间夹合一软质弹性笔套三层组合式结构体，其中于外套管管壁设有多个排列的圆孔，内层套管的上、下两侧设有螺牙，分别螺合笔杆及笔头，而内、外层套管间夹合的笔套对应外层套管上排列的圆孔设有多个凸粒，凸粒凸伸出外层套管的圆孔。

笔套为硅胶材质制成。

25 综上所述，本实用新型所揭示的书写用笔具，通过采用三层组合式的金属套管及硅胶握持笔套组合并与笔杆间相互锁合，有效增加握持部的接触效果并使书写具有稳固感，且长时间书写并不易产生疲倦感，明显增进了功效，更具有进步性及实用性。

以下兹就本实用新型的结构功能，以一较佳可行的实施例，配合附图详细说明于后，使增加对本实用新型的了解。

图 1：是已知笔具结构的组合剖示图。

图 2：是本实用新型的立体系统图。

5 图 3：是本实用新型笔套结构的立体系统图。

图 4：是本实用新型笔套结构的立体组合图。

图 5：是本实用新型的组合剖示图。

图 6：是本实用新型的实施例示意图。

请参阅图 2、图 5 所示，为本实用新型书写用笔具结构的立体系统图及组合剖示图，其主要结构是为一金属制笔具，于笔杆 10 底缘内孔处设有内螺牙 11，另设有一金属制内层套管 20，该内层套管 20 管径略小于笔杆 10 的外径，并于内层套管上、下处皆设有外螺牙 21，借此而与笔杆 10 底缘的内螺牙 11 螺合锁固，通过内层套管 10 与上段笔杆 10 相互锁固，而形成微凹陷的沟槽部，于该沟槽部处套合一由硅胶制成的软质弹性笔套 40，该软质弹性笔套表面乃设有等距排列的浮凸粒 41，并于笔套外再套置一外层套管 30，此外层套管管壁是相同于笔套表面凸粒位置设有若干排列的圆孔 31，而使笔套夹合于内层套管 20、外层套管 30 中间（如图 3、图 4 所示），笔心 60 置入于笔杆内并于内层套管 20 底部外螺牙 21 处锁固一笔头 50 即可；

20 此由三层式组合的金属套管 20、30 及硅胶制笔套 40 制成的书写用握持部，不仅可增大握持部的稳固感，而让笔套紧密套合于内、外层套管中，使套管组能锁固于笔杆 10 上，并有效防止已知笔套层滑落于笔杆的困扰点，且长时间书写并不易产生疲倦感，确为一实用、创新的设计。

25 以上所述仅为本实用新型的一较佳实施范例，不能以之限定本实用新型实施的范围，凡依本实用新型技术方案所作的均等变化或修饰，仍应属本实用新型技术方案所涵盖的范围内。



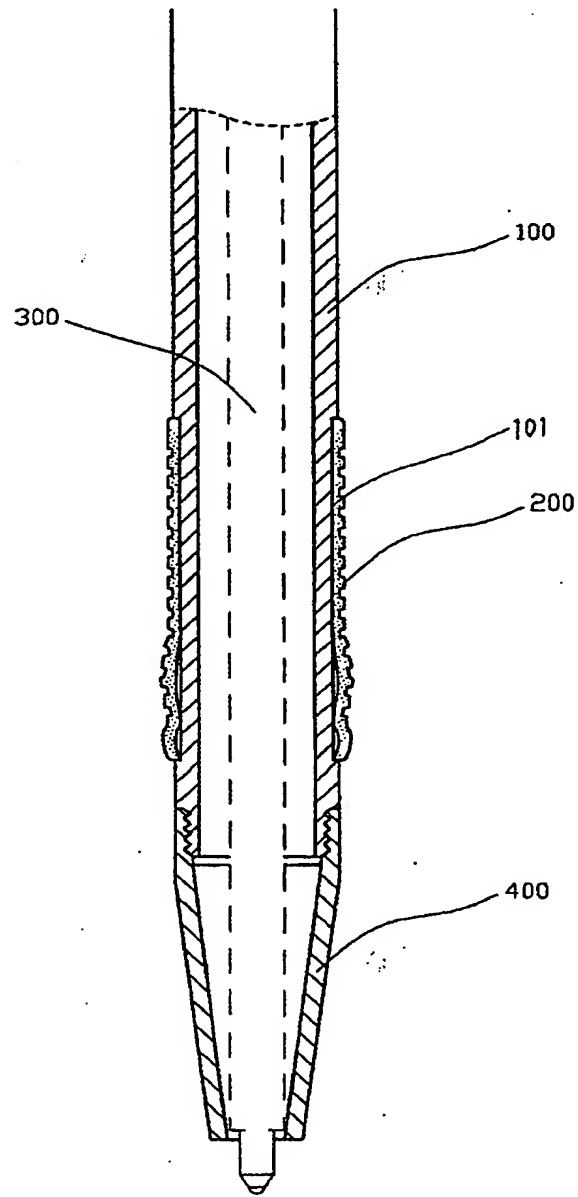


图 1

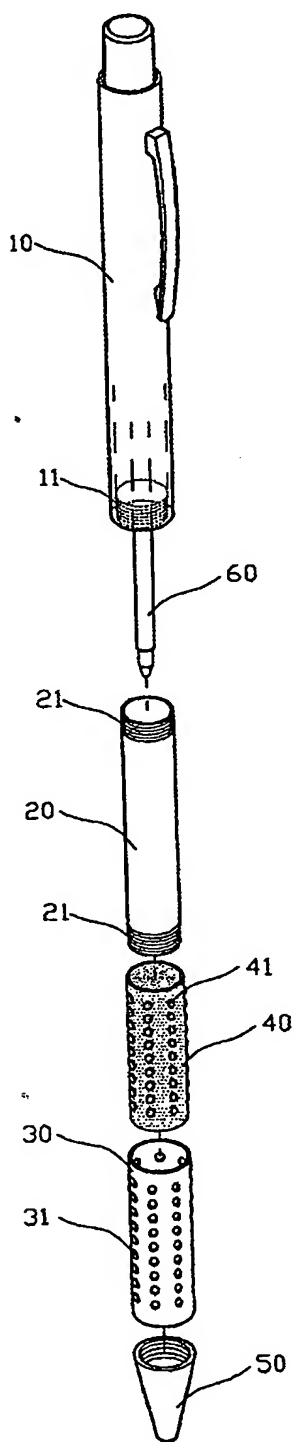


图 2

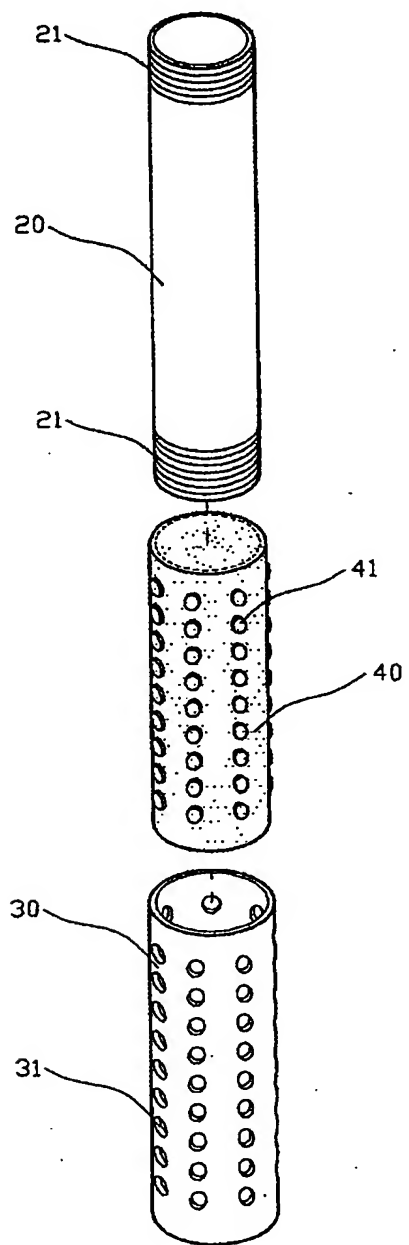


图 3

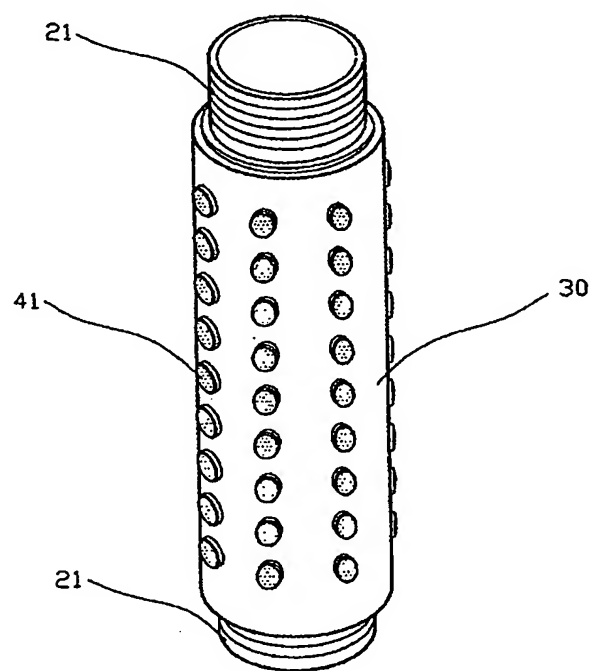


图 4

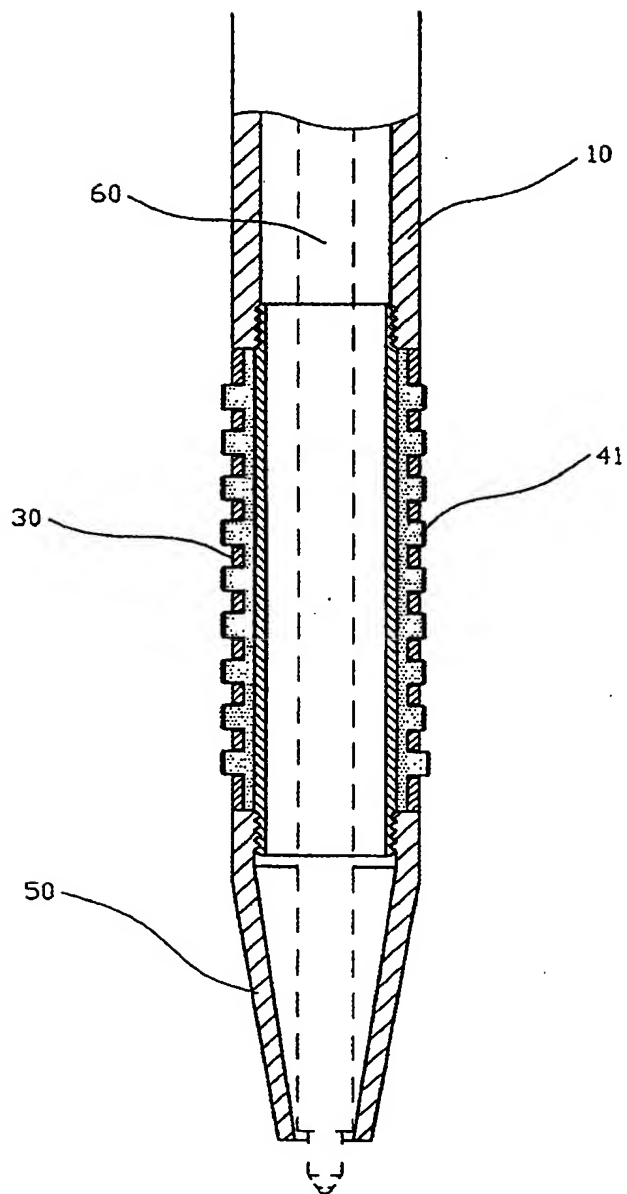


图 5



图 6